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*** FONT MANAGER ***

WHAT IT IS: FONTMAN is a program for the 2068 or SPECTRUM
computers, allowing the user to use, modify or create up to 20
fonts at a time. FONTMAN is the nickname of FONT MANAGER.

LOADING: CLEAR 38999, then LOAD "".

A FONT is a set of characters. A font library is a set of
fonts.

FONT LIBRARY STRUCTURE: a FONT (or FULL set) consists of 117 8x8
characters (936 bytes), including a MAIN set (96 characters) and
a UDG set (21 characters). There are 20 such fonts in a FONTMAN
library.

FONTMAN comes with 2 font libraries. When the program is first
loaded, it includes library #1. LIB2 (Library #2) is also on the
the cassette, right after the program. Or it's also on disc, if
that's how you got the program.

When FONTMAN is first loaded, you will be asked if you wish to
use the AERCO printer interface. Answer Y or N, depending on
whether you have one attached. If you answer Y, a special print
driver called PRX will be activated. This driver is documented
separately. Future versions of FONTMAN will be able to
accommodate other printer interfaces.

Then you'll be asked whether you wish to use AERCO DISC. Answer
Y or N, depending on whether you have AERCO DISC.

NOTE: While using FONTMAN, do not CLEAR or RUN. If the program
stops for any reason, resume with GO TO 10. FONTMAN's BASIC
variables are not initialzed. You can find the value of any of
them simply by quitting and PRINTing it. For example, PRINT
edbuff to see the value of the variable "edbuff".

FONTMAN's font editor is written in machine-code. This editor
uses either the upper keyrow or a joystick (left or right) for
cursor movement, and there are a great many single-keystroke
functions.

AN OVERVIEW
FONTMAN has two menus: the MAIN MENU and the EDIT MENU. Each
menu's commands are accessed by pressing the key corresponding
to the first letter of the command name. There is no need to
press ENTER. NOTE that FONTMAN never asks you to confirm a
choice, so be careful when pressing keys.

AN OVERVIEW, continued

You will note that some commands are on BOTH menus, such as PUT,
FETCH and GETROM. But on the MAIN MENU, these commands relate to
the whole current FONT, whereas on the EDIT MENU, they relate
just to the current CHARACTER of the current font.

You get from the MAIN MENU to the EDIT MENU with key E.
You get from the EDIT MENU to the MAIN MENU with keys Q or A.

NOTE that most command keys on both menus will REPEAT if the key
is held down.

THE MAIN MENU will look something like this:

                    *** MAIN MENU ***

        Font # 8 of 20

        (main set)

        (udg set)

        EDIT   SAVE
        NEW #   LOAD
        UP #   GETROM
        DN #   BACKUP prog+lib

        PUT   X:disc   (disc version only)
        FETCH <M8>   CATALOG   (disc version only)

        QUIT   TEST   ACTIVATE

With the MAIN MENU, you are always dealing with ONE of the 20
library fonts, called the CURRENT FONT. It is this font (or part
of it) that will be saved by the SAVE command or PUT command, or
replaced by the LOAD, GETROM or FETCH commands, or edited by the
EDIT command, or tested by the TEST command, or activated by the
ACTIVATE command.

The SAVE and LOAD commands also allow you to save or load a
whole library.

The NEW, UP and DN commands are used to select a different
library font as the CURRENT FONT. NOTE that you can use key 7 in
place of key U, and key 6 in place of key D on the main menu.
You can hold down the UP or DN keys to scan through the library.
The NEW command lets you input the number of the font you wish
to select.

MAIN MENU, continued

The PUT command lets you save the current font (or part of it)
temporarily in a "RAM buffer". You will be asked whether you
wish to PUT the "Full" set, "Main" set or "UDG" set in the
buffer.

The contents of anything in the buffer will be indicated in
brackets after the FETCH command. <9M> would mean that the
buffer contains the main set of Font #9.

The FETCH command replaces the appropriate part of the current
set with whatever is in the buffer.

There are many uses for PUT and FETCH. For example, you can
duplicate the UDG set of one font into the UDG set of another
font. Or you can PUT a whole font in the buffer, do a GETROM,
then later FETCH the original font back again.

The SAVE and LOAD commands similarly allow you to save/load all
or part of a font... or a whole library.

If you have disc: the X command allows you to switch from disc
to tape, or tape to disc. The device shown after X: is the
device that will be used by SAVE, LOAD or BACKUP. The CATALOG
command displays the current disc directory. You can then use
any Main Menu command, or hit ENTER to display the Main Menu.

The BACKUP command makes a backup copy of the program, including
the current library.

The GETROM command replaces the current font with the "default
font", that is, the font that was in effect when the program was
loaded... normally the ROM font.

The QUIT command simply stops the program. You can also use
BREAK. Again, be sure not to RUN or CLEAR. To resume, GO TO 5 or
GO TO 10.

The TEST command allows you to test the current font on the
screen or on paper, by typing a few lines. The lines you type
are stored in F$. When you LPRINT (by pressing SS+W then ENTER),
whatever is in F$ is LPRINTED, and F$ is cleared. To quit the
TEST function, press SS+Q then ENTER.

The ACTIVATE command "turns on" the EDIT FONT, which is a copy
of the current font. Pressing key A again will turn the normal
or default font back on. The location of the EDIT FONT can be
found with PRINT edbuff.

Thus you can load FONTMAN, select a particular font, Activate
it, QUIT and then load another program, leaving the selected
font as the one that the computer is using for printing on
screen or paper.

THE EDIT MENU

This menu permits you to edit all the characters of the current
font, one at a time.

This menu has many commands, arranged in functional groups
called "fiddle", "modes", "buffer", "char #" and "menu".

Each functional group will be discussed in turn. First, however,
note the "big character" displayed in the top center area of the
screen. To the right of this is the small "current character".
Below that is the character number, and below that is the
equivalent ROM character. Below that is the "buffer" group.

THE "menu" GROUP

The CLEAN command erases all command names from the screen.
Pressing C again will bring the command names back. Once you
know all the commands, you may not wish to have them displayed.

The QUIT command returns to the MAIN MENU, keeping any changes
you may have made to the current font.

The ABANDON command returns to the MAIN MENU, forgetting any
changes you may have made to the current font.

CURSOR MOVEMENT

There are 4 cursor modes: Move, Write, Erase and Toggle.

The cursor is a small M, W, E or T character on the big
character. The cursor indicates the current mode; thus, an "M"
cursor indicates that MOVE mode is in effect.

The cursor may be moved with either joystick, or with numeric
keys, as follows:

```
  ↖   ↘      ←   ↓   ↑   →      ↙   ↗
  1   2      5   6   7   8      9   0
```

Thus keys 1,2,9 and 0 govern diagonal movement.

A special command called JOYDC governs whether the joystick
diagonal controls work. Press key J to change status between "y"
and "n" ("yes" / "no"). With some joysticks it may be preferable
NOT to have diagonal controls work.

EDIT MENU cursor movement, continued

What HAPPENS to the dots of a character as the cursor is moved
depends on the CURSOR MODE, as does what happens when ENTER or
the joystick FIRE button is pressed.

In MOVE or TOGGLE mode, cursor movement does nothing to the
character. The cursor simply moves.

In WRITE mode, the cursor makes a dot wherever it goes.
In ERASE mode, the cursor erases a dot wherever it goes.

In MOVE, WRITE or ERASE modes, pressing ENTER/FIRE changes the
cursor mode is this sequence: M E M W M E M W and so on.

In TOGGLE mode, pressing FIRE or ENTER toggles the dot.

You can select any mode by pressing M, W, E or T.

SPEED of cursor movement is governed by the 2068 system
variables REPDEL and REPPER; see Page 262 of 2068 User Manual.
Both keyboard and joystick are so governed; both use a
"delay-before-repeat" and a "delay-bewteen-successive-repeats".
This allows precise cursor control.

SOUND of cursor movement and of all keypresses is governed by
System Variable PIP (see manual, and Line 7 of FONTMAN BASIC).

TOGGLE mode is usually best when you are making minor changes to
an existing character. The other modes are best when creating a
character from scratch.

THE "fiddle" GROUP
Except for GETROM and ZAP, these commands rearrange the dots of
a character. If you repeat the command, the character will soon
wind up in its original form.

ROTATE rotates the character 90 degrees. This is best seen with
something like an E or T. A little arrow after the ROTATE
command rotates as well. If you use other commands between
rotations, the arrow may revert to 0 degrees, which may not be
"correct".

HSCROLL scrolls the character horizontally.
VSCROLL scrolls the character vertically.

XFLIP produces a "mirror image" of the character horizontally.
YFLIP does the same thing, vertically.

INVERT changes all dots to spaces, and all spaces to dots.

GETROM replaces the character with its ROM equivalent.

ZAP erases the character, making it into a SPACE.

EDIT MENU commands, continued

THE "buffer" GROUP

PUT puts a copy of the current character in a special "little buffer", always shown between PUT and FETCH.

OR merges the current character with the buffer character.

FETCH replaces the current character with the buffer character.

This "little buffer" has nothing to do with the MAIN MENU font buffer. Note that you can transfer a character from one font to another, using the little buffer. Or you can keep the "original version" of a character safe in the little buffer while you try to improve it.

THE "char #" GROUP

NEWCHAR allows you to select a different character to edit, by typing it. Note that you can use CS+9 to get graphics mode and then type A-U to select a UDG. Non-editable characters are rejected. Only characters 32-127 and 144-164 are editable. See 2068 User Manual Pages 240-243.

UP and DOWN select the next character up or down in numeric sequence, circularly. Hold key down to go fast.

PROGRAMMERS NOTE: The EDIT MENU functions are mostly done in Machine Code, but the display of menu commands is done mostly in BASIC, at Line 6000. This is so that, if you don't like it, you can change it.

MEMORY USAGE: FONTMAN uses all but about 8K of memory in 32-col mode. FONTMAN has been designed to work on 2068 or SPECTRUM, though joystick software won't work on a genuine Speccy. FONTMAN will work, with very minor modifications, with OS64 or BA64, in 64-COL mode. Library fonts can be used with a great many programs in a great many ways, but a discussion of such usage is beyond the scope of this documentation.

A brief memory map is as follows:

****** 32 COL MODE *******			******* 64-COL MODE ********		
LOCATION	LENGTH	NAME	LOCATION	LENGTH	NAME
			63424	2112	stack etc
65368	168	UDG set	63256	168	UDG SET
64600	768	MAIN set	62488	768	MAIN set
61500	700	PRX driver	61500	700	PRX driver
59220	770	font buffer	59220	770	font buffer
40500	18720	library	40500	18720	library
39000	1500	FONTMAN mc	39000	1500	FONTMAN mc

*** end ***